

VEDENIKOV, G.S., dots., kand.tekhn.nauk

Most efficient structural shapes of prestressed steel girders. Nauch.
dokl.vys.shkoly; stroi. no.1:126-134 ' 58. (MIRA 12:1)

1. Predstavlena kafedroy metallicheskich konstruktsiy Moskovskogo
inzhenerno-stroitel'nogo instituta imeni V.V. Kuybysheva.
(Steel, Structural) (Girders--Testing)

BELENYA, Yevgeniy Ivanovich, doktor tekhn. nauk, prof.;
VEDENIKOV, G.S., kand. tekhn. nauk, retsenzent; PIMENOV,
I.L., retsenzent; POPOV, S.A., kand. tekhn. nauk, nauchn.
red.; BORODINA, I.S., red.; GOL'BERG, T.M., tekhn. red.

[Supporting elements of prestressed metal] Predvaritel'no
napriazhennye metallicheskie nesushchie konstruktsii. Mo-
skva, Gosstroizdat, 1963. 322p. (MIRA 17:1)

STRELETSKIY, Nikolay Stanislavovich, doktor tekhn. nauk, prof.;
BULENYA, Yevgeniy Ivanovich, prof.; ~~VEDENIKOV, Georgiy~~
~~Stanislavovich, dots.~~; MUKHANOV, Konstantin Konstantinovich,
~~dots.~~; LESSIG, Yevgeniy Nikolayevich, dots.; POPOV, S.A.,
kand. tekhn. nauk, nauchn. red.; LILEYEV, A.F., inzh.,
nauchn. red.

[Metal elements; a special course] Metallicheskie kon-
struktsii; spetsial'nyi kurs. Pod red. N.S.Streletskogo.
Moskva, Stroiizdat, 1965. 366 p. (MIRA 19:1)

1. Chlen-korrespondent AN SSSR (for Streletskiy).

BELENYA, Yevgeniy Ivanovich, doktor tekhn. nauk, prof.; VEDENIKOV,
G.S., kand. tekhn. nauk, retsenzent; PIMENOV, I.L., kand.
tekhn. nauk, retsenzent; POPOV, S.A., kand. tekhn. nauk,
nauchn. red.; BORODINA, I.S., red.

[Bearing structures of prestressed metal] Predvaritel'no
napriazhennye metallicheskie nesushchei konstruktsii. Mo-
skva, Gosstroizdat, 1963. 322 p. (MIRA 17:5)

VEDENIKOV. G. S.

"Certain Problems of the Space Work of
Beam Bridges." Thesis for degree of Cand.
Technical Sci. Sub 6 Jun 49, Moscow Order of
the Labor Red Banner Engineering Con-
struction Inst imeni V. V. Kuybyshev

Summary 82, 18 Dec 52, Dissertations
Presented For Degrees in Science and
Engineering in Moscow in 1949. From
Vedhernyaya Moskva, Jan-Dec 1949

VEDENIKTOV, A.F.

Case of recurrent rupture of the bladder. Urologia 24 no.1:61-62 Ja-7 '59.
(MIRA 12:1)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. A.G. Karavonov)
Kalininskogo meditsinskogo instituta na baze urologicheskogo otdeleniya
oblastnoy bol'nitsy.

(BLADDER, wds. & inj.

posttraum. spontaneous recur. rupt. (Rus))

ANTIMONOV, B.S., prof.; VEDENIN, N.N., kand. yurid. nauk; GENKIN,
D.M., prof.; GRAVE, K.A., prof.; YEPANESHNIKOV, N.V.,
dots.; ZHUKOVA, L.F., dots.; KUNIK, Ya.A., dots.;
L'VOVICH, Yu.Ya.; MARGOLIN, M.Z.; MCROVSKAYA, T.A., dots.;
POLENINA, S.V., kand. yurid. nauk; SADIKOV, I.N.; FIALKOV,
M.A., kand. yurid. nauk; YAZEV, V.A., kand. yurid. nauk;
YAKHNINA, N.A., kand. yurid. nauk; KIRAKOZOVA, N.Sh., red.;
EL'KINA, E.M., tekhn. red.

[Government trade regulation] Regulirovanie gosudarstvennoi
torgovli. Moskva, Gostorgizdat, 1963. 339 p. (MIRA 16:7)
(Commercial law)

MARCHENKO, Ya.V.; VEDENIN, P.S., brigadir elektromontazhnikov

Installing main cables of the interior electric wiring without using pipes during the construction of buildings. Suggested by IA.V. Marchenko, P.S.Vedenin. Rats.i izobr.predl.v stroi. no.13: 118-120 '59. (MIRA 13:6)

1. Nachal'nik uchastka Stroitel'no-montazhnogo upravleniya No.1 tresta No.27 Mytishchistroy Glavmosoblstroya, stantsiya Mytishchim Moskovskoy oblasti, Vodoprovodnaya ul., d.13 (for Marchenko).
2. Uchastok Stroitel'no-montazhnogo upravleniya No.1 tresta No.27 Mytishchistroy Glavmosoblstroya, stantsiya Mytishchim Moskovskoy oblasti, Vodoprovodnaya ul., d.13 (for Vedenin).
(Electric wiring, Interior)

VEDENIN, V.A.

Method for sending unprocessed material through the mail for laboratory examination. Lab.delo 4 no.3:56-59 My-Je '58 (MIRA 11:5)

1. Iz Bryanskogo oblastnogo kozhno-venerologicheskogo dispansera (glavny vrach F.V. Trufanov).
(BLOOD--ANALYSIS AND CHEMISTRY)

L 2569C-65

ACCESSION NR: AP5000868

pressure and with decreasing m , this being a construction parameter reflecting a decrease in radius. Therefore, pressure valves increase the economy of operation of a vacuum pump. For $m \leq 0.721$ the indicative pressure curves show a maximum. For $m > 0.721$ the curve has no maximum, but increases uniformly with decreasing pressure ratios. An increase in m increases the internal indicative pressure, but the maximum shifts toward lower pressures. Under various equivalent conditions, the value of the internal indicative pressure increases with decreasing m . The curves are shown in Fig. 3 graphs.

ASSOCIATION: MVTL im. N.E. Baumana

SUBMITTED: 08Apr64

ENCL: 02

SUB CODE: IE, ME

GRFBENNIKOV, N.P.; VEDENIN, V.I.

Drilling a deep well in salt-bearing sediments. Burenie no.1:13-17
'64. (MIRA 18:5)

1. Volgogradskiy nauchno-issledovatel'skiy institut nefti i gaza
i trest "Volgogradneftegazrazvodka".

VEDENIN, V.I.

Cement slurry with additives for cementing wells at high temperatures
and pressures. Trudy MINKHIGP no.29:31-38 '60. (MIRA 13:12)
(Oil well cementing)

VEDENIN, V. N.

New design of cable conveyers. Bum.prom. 35 no.10;21-22 0 '60.
(MIRA 13:10)

(Conveying machinery)

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
COMMON ELEMENTS																										COMMON ELEMENTS																									
<p>ca</p> <p>The relationship of certain dyes to the mercerization of fibers. A. T. Belous and L. V. Vedenina. <i>Tekstil. Prom.</i> 7, No. 10, 39-40 (1947). The depth of colors produced in dyeing mercerized fibers was found to be uniformly greater than in dyeing unmercerized fibers.</p> <p>Marshall Sittig</p> <p>25</p>																																																			
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p> <p>FROM SYMBOLS</p>																										<p>REMARKS</p>																									
<p>SYMBOLS</p>																										<p>REMARKS</p>																									

SAVICHEVSKAYA, L.I. (Sverdlovsk); VEDENINA, O.M. (Sverdlovsk); LUKANIN, V.P., professor, zaveduyushchiy.

Atresia of the aortic isthmus. Klin.med. 31 no.7:73-75 J1 '53. (MLRA 6:9)

1. Propedevticheskaya terapevticheskaya klinika Oblastnoy klinicheskoy bol'nitsy (for Lukanin). 2. Patologoanatomicheskoye otdeleniye Oblastnoy klinicheskoy bol'nitsy. (Aorta--Abnormities and deformities)

VEDENISOV, B. I Dr.

Povyshenie Skorosti Dvizhenia, Vesa Sostavov, Moschnosti i Effektivnosti
Tiagovykh Sredstv Transporta (Increasing Speed of Motion - Weight of Rolling
Stock, Power and Efficiency of Traction Equipment)

266 p. 1.50

SO: Four Continent Book List, April 1954

AT R

STANIS (1955) J. W. 1955
This is an extremely rare. The contents include (1) the

VEDENKIN, D.P., inzh., red.; ZASLAVSKIY, Ye.I., inzh., red.;
KOVAL'SKIY, L.Ya., inzh., red.; VOYTOVA, V.P., inzh.,
red.; SHELIKHOV, S.N., inzh., red.; NEUDAKIN, K.A., red.

[Price list for the assembly of equipment] TSennik na
montazh oborudovaniia. Moskva, Stroiizdat. No.11. 1965.
104 p. (MIRA 18:2)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po de-
lam stroitel'stva. 2. Gosstroy SSSR (for Vedenkin).
3. Nauchno-issledovatel'skiy institut ekonomiki stroitel'-
stva Gosstroya SSSR (for Zaslavskiy, Koval'skiy, Voytova).
4. Proyektno-konstruktorskoye byuro No.12 Glavmontazhavto-
matiki (for Neudakin). 5. Vsesoyuznyy bank finansirovaniya
kapital'nykh vlozheniy SSSR (for Shelikhov).

VEDENISOV, N. P.

Zarechaniya o nepreryvnykh funktsiyakh v topologicheskikh prostranstvakh. M.,
Uchen zar ped. in-ta, ser. fiz.-mater., 2 (1938), 47-54

SO: Mathematics in the USSR, 1917-1947

edited by Kurosh, A. G.

Markushevich, A. I.

Raghevskiy, F. K.

Moscow, Leningrad, 1948

OSTROVSKIY, I.I., inzh., red.; GRIGOROV, I.I., inzh., red.;
MURASHEV, A.G., inzh., red.; PECHURCHIK, S.A., inzh.,
red.; VEDENKIN, D.P., inzh., red.; KUDINOV, M.P., inzh.,
red.; YELISEYEVA, Ye.Ye., inzh., red.; PETRUNIN, I.S.,
inzh., red.; TURIANSKIY, M.A., inzh., red.; POZDNYAKOVA,
L.V., inzh., red.; KOKOV, K.V., inzh., red.

[Collections Nos. 5, 6, 14, 43 of standard district uniform
estimates for construction work] ~~Sborniki~~ Nos. 5, 6, 14, 43
~~edinnykh-raionnykh~~ edinichnykh rastsenok na stroitel'nye
raboty. Moskva, Stroiizdat, 1965. 86 p. (MIRA 18:8)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po de-
lam stroitel'stva. 2. Gosstroy SSSR (for Ostrovskiy, Vedenkin,
Kudinov). 3. Nauchno-issledovatel'skiy institut ekonomiki
stroitel'stva Gosstroya SSSR (for Grigorov, Murashev, Petrunin,
Yelisseyeva, Turianskiy, Pozdnyakova). 4. Gosudarstvennyy insti-
tut po proyektirovaniyu predpriyatiy tsvetnoy metallurgii (for
Pechurchik). 5. Gosudarstvennyy proyektnyy institut po proyekti-
rovaniyu predpriyatiy tekstil'noy promyshlennosti (for Kokov).

VEDENKIN, G.S., prof.; MIKHAYLOVA, L.M.

Comparative study of the corrosion and corrosion-mechanical
characteristics of open-hearth and converter steel. Trudy
TSNII MPS no.252:96-109 '63. (MIRA 16:8)
(Steel, Structural--Testing)

VEDENKIN, S. G., prof.

Chemistry at the service of railroad transportation. Khim. v
shkole 17 no.4:14-24 J1-Ag '62. (MIRA 15:10)

(Railroad research) (Chemistry, technical)

VEDENOV, A.A.; RUDAKOV, L.I.

Wave interaction in continuous media. Dokl. AN SSSR 159 no.4:
767-770 D '64 (MIRA 18:1)

1. Predstavleno akademikom M.A. Leontovichem.

26

Investigation of varnish substitutes. S. VEDENKIN *Malyarnoe Delo* 1931, No. 3, 26-32; *Chem. Zvest.* 1931, 11, 2793.—An investigation of the behavior of some varnish substitutes of Russian manu. in lacquer and pigment paints. "Novol," a linseed oil polymerized with S_2Cl_2 and dissolved in white spirit, is a useful varnish substitute. It is suitable for use with all pigments used for conveyances in land and water transportation with the exception of lead green. Petrov varnish is the Ca salt of oxidized vaseline dissolved in turpentine; it is suitable for all kinds of interior painting, since it is not very fast to moisture. So called "Kusharaker Lack" is a soln. of hard coal pitch in ligroin and is suitable for all kinds of black painting. A rubber dye is prepd. according to Klinklaw in the following manner: 12 g. raw rubber is dissolved in 12 kg benzine. One hundred fifty g. of this soln. is added to a mixt. of 16 g. oil paint, 500 g. lacquer, 100 g. siccativ and the whole dild with benzine. M. G. Moore

ASAC-11-A METALLURGICAL LITERATURE CLASSIFICATION

117 AND 118 UNDER

PROCESSES AND PROPERTIES

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C4

Atmospheric corrosion of metal structures. S. G. Vedenkin. *Trudy Sovetskoye Voprosam Korrozii* 1940, No. 7, 133-3. --V. 1940. *Khim. Referat. Zhur.* 1940, No. 7, 133-3. --V. 1940. The depth investigated the corrosion of railroad bridges. The depth of the penetration of corrosion reaches 0.1-0.2 mm. and annually in some places and up to 0.40 mm. under very unfavorable conditions. The contact of carbon (from locomotive stacks) with the metal facilitates the destruction of paint and the development of corrosion. The chem. compn. of the metal of the bridge is of the utmost importance. S in the steel decreases its chem. stability. Cu contg. steels are less stable to corrosion by approx. 20% (in the presence of SO₂ in the atm.). A further increase in the content of Cu (up to 0.60-0.80%) increases the corrosion resistance very little. Decreasing the content of S from 0.09 to 0.02% increases the resistance of steels to corrosion in the shop atm. by 12%. Mn-Cu steel and DS steel are very resistant to corrosion. W. R. Henn

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

REGION (117-118) 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

1ST AND 2ND ORDERS		PROCESSIES AND PROPERTIES INDEX		3RD AND 4TH ORDERS	
<p>Reducing the Corrosion of Condenser Parts for Locomotives. N. G. Vedenkin and E. R. Anisimova (<i>Tekhn. Zhel'znich. Dvzgo</i>, 1946, 5, (7), 18-20; 1947, 41, 1196).—[In Russian]. A study was made of the corrosion protection of finned copper tubes of locomotive condensers. The copper tubes are provided with 666 tinplate fins, which are coated and soldered to the tube by immersion in a melt comprising lead 83, tin 10, and antimony 7%. In spite of the protective coating, the fins rust. The corrosion is attributed to the p.d. between the iron and the coating of the fins. The p.d. determined in 0.01N-sulphuric acid was 0.14 V. A comparative study was made of the corrosion of steel fins (uncoated), sheets of the lead tin-antimony alloy, and zinc-base alloys. The corrosion of the alloy was insignificant. However, steel coated with lead tin antimony and with zinc alloy showed a marked difference. The ratio of corrosion of lead tin-antimony-coated steel, uncoated steel, and steel coated with a zinc-base alloy was 8:5:1. The zinc-alloy-plated steel had physico-mechanical as well as economic advantages. Most advantageous was a coating of zinc-aluminium alloy containing 0.2% aluminium.</p>					
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>					
<p>STONY 510-22100</p>					
<p>STONY 510-22100</p>					

VEDENKIN, S. G.
USSR/Locomotives

4602.0401

Dec 1947

"Combatting Loss and Frothing of Water in Locomotive Boilers" $\frac{1}{4}$ p

"Zh-d Transport" No 12

At plenary session of Scientific-Technical Council of Ministry of Transportation, F. I. Fridman reported on measures for combatting frothing and loss of water from locomotive boilers and S. G. Vedenkina spoke on protection of locomotive boilers from corrosion. Decision reached to pursue studies in these fields and to apply practical results.

13068

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VEDENKIN, S.G., professor

Causes and mechanism of crack development in metals. Tekh.zhel.
dor.7 no.7:15-18 J1'48. (MLRA 8:11)
(Metals--Fatigue)

VEDEKIN, S. G. and NIIPOROVA, V. M.

"Corrosion of Metals Under Stress and Methods of Protection," Mashgiz, Moscow, 1950.

VEDENKIN, S. G.

RT-1567 (The study of corrosion stability of boiler steels under the action of high temperature steam) Izuchenie korroziionnoi stoikosti kotel'nykh stalei pod voz-deistviem para vysokikh temperatur. Pages 62-76 from:
KORROZIJA METALLOV POD NAPRIAZHENIEM I SPOSOBY ZASHCHITY. Moscow, 1950 (Original Russian source unavailable for review)

VEDEKIN, S. G.

"Atmospheric Corrosion of Metals," Metallurgizdat, Moscow, 1951.

VEDENKIN, S. G. (Prof.)

"Atmospheric Endurance of Low-Alloy Steels," p. 161 of Problems of Sea Corrosion, 1951.

Book W-22365, 14 Apr 52

VEDENKIN, S.G., professor.

Resistance of low-alloy steels to atmospheric corrosion.
Trudy kon. po bor' s korr.met. no.1:161-174 '51. (MLRA 10:8)
(Steel alloys--Corrosion)
(Steel, Structural--Testing)

VEDEKIN, S G

14/5
615.8
.741

Korroziionnyye Svoystva Metallov i Splavov (Corrosive Characteristics of Metals and Alloys) Moskva, Metallurgizdat, 1954.

77 p. tables (Korroziya i Zashchita Metallov, Razdel 2)
"Literatura": p. 77-(78)

VEDEKIN, S. G. (Prof) and MIKIFOROVA, V. M. Cand Tech Sci

"Causes of Boiler Damage," one of eight articles appearing in the book:
"Investigation of the Stress Corrosion of Metals," edited by G.V.Akinov, Mashgiz, Moscow,
1953.

Central Scientific Research Inst. of Technology and Machine Bldg.

Translation W-31586, 15 Dec 55

U S S R

✓ Causes of boiler failure. V. M. Nikiforova and S. G. Vedenkin. *Izvestiia Korrozii Metal. pod Plazmennym* [Moscow (Moskva) 1933, 21-49; *Referat. Zhur., Khim.* 1934, No. 35973. — A no. of marine boilers damaged by corrosion and cracking was studied. In all cases but one the compn. and mech. properties of the steel were in accordance with the requirements. In the one case the S content was too high (0.00%). In another case decompn. of perlite and formation of cementite indicated overheating of the metal caused by a thick layer of scale. The cracks were intercryst. indicating alk. brittleness as well as intracryst. analogous to cracks formed by corrosion fatigue. Corrosion damage was both on the water side and fire side of the boiler. To prevent corrosion and cracking it is suggested to use a plate of greater corrosion resistance and improve the construction of the boiler to reduce strains and stresses. It is further recommended to deaerate the feed water and add to the boiler water corrosion and cracking retardants as well as to prevent scale formation.

M. Hosh

VEDENKIN, S.G., professor; KUZNETSOV, V.G., inzhener; KAZARNOVSKIY, S.N.,
Inzhener.

Improving lacquers and paints. Standartizatsiia no.2:12-17 Mr-Ap '54.
(MLRA 7:6)

1. Tsentral'nyy nauchno-issledovatel'skiy institut Ministerstva putey
soobshcheniya. (Paint materials--Standards)

SOV/124-58-2 2369

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 2, p 115 (USSR)

AUTHOR: Vedenkin, S.G.

TITLE: On the Stress Corrosion of Metals (O korrozii metalla pod
napryazheniyem)

PERIODICAL: Korroziya metallov i metody bor'by s neyu. Moscow, Oborongiz
1955, pp 3-25

ABSTRACT: Excerpts from a report on stress corrosion presented at a
scientific-technical meeting. Results of some investigation in that
field are described.

From the résumé

Card 1/1

VEDENKI, S.G., professor; KAZIMIROVSKAYA, Ye.L., inzhener.

Effect of gaseous media on the corrosion of alloys at high temperatures. (Review of foreign literature, 1951-1954). Metalloved. obr.met. no.5:55-63 My '56. (MLRA 9:8)
(Metals at high temperatures) (Steel alloys--Corrosion)

VEDENKIN, S.G.

KUK, F. [Cook, F.R.]; PRYZER, Kh. [Preiser, H.S.]; MILLS, Dzh. [Mills, J.F.];
YAKUBOVSKIY, V.A. [translator]; VEDENKIN, S.G., professor, redaktor;
IVANOV, K.A., redaktor izdatel'stva; TIKHONOVA, Ye.A., tekhnicheskii
redaktor

[Electrical method of rust removal from tanker ship compartments.
Translated from the English] Katodnyi sposob ochistki sudovykh tankov
ot tzhavchiny. Perevod s angliiskogo. Moskva, Izd-vo "Morskoi
transport," 1956. 41 p. (MLRA 10:9)
(Tank vessels) (Corrosion and anticorrosives)

Vedenkin, S. G.

USSR/Corrosion. Protection from Corrosion.

J

Abs Jour: Ref Zhur-Khimiya, No 3, 1957, 10541

Author : Vedenkin, S. G. and Kazimirovskaya, Ye. L.

Inst : Not given

Title : On the Effect of Gaseous Media on the Corrosion of Alloys
at High Temperatures

Orig Pub: Metallovedniye i obrabotka metallov, 1956, No 5, 55-63

Abstract: A survey of the foreign literature from 1951-1954. The authors list methods for corrosion testing; data on the effect of the composition of the gaseous media on the corrosion of alloys; on the effect of Va and of its oxides on the heat resistance of alloys, and on the corrosion resistance of highly alloyed alloys and materials used in high-pressure steam boilers are also given.

Card 1/1

YEDENKIN, S.G., professor; KHEBNIKOV, G.K., kandidat tekhnicheskikh nauk;
CHURILIN, N.S., kandidat tekhnicheskikh nauk.

Using sulfurous diesel fuels in TE2 diesel locomotives. Vest.TSNII
MPS no.1:13-18 # '57. (MLRA 10:3)
(Locomotives--Fuel consumption)

KRYANIN, Ivan Romanovich; ~~VEDENKIN~~, S.G., prof., retsenzent; KULIKOV, F.V.,
inzh., red.; EL'KIND, V.D., tekhn.red.

[Hydroturbine vanes; cavitation collapse, research and study of
data] Lopasti gidroturbin; kavitatsionny razrusheniia, izyskanie i
issledovanie materialov. Moskva, Gos. nauchno-tekhn.izd-vo mashino-
stroit. lit-ry, 1958, 206 p. (MIRA 11:3)
(Cavitation) (Hydraulic turbines--Blade)

SINYAVSKIY, V.S., inzh.; VEDEKIN, S.G., prof.

Aluminum alloys used in railroad car construction. Vest. TSNII MPS
17 no.8:30-34 D '58. (MIRA 12:1)
(Railroads--Cars--Construction) (Aluminum alloys)

18 (7)

PAGE 1 BOOK EXTRACTS 807/2296

Technical '77 (Moscow-Leningrad) only Institut Tekhnologii i Mashinostroyeniya
Bibliography 1. Bibliography of '77 (Moscow-Leningrad) (Corrosion and Protection
of Metals in the Machine-Building Industry) Moscow, Mashgiz, 1979. 347 p.
(Moscow) (Gosizdat) no. 98 3,500 copies printed.

2. I. A. Y. Pribludnyy, Doctor of Chemical Sciences, Professor M. of Publishing
the Soviet A. I. Kirillov, Engineer, Tech. Sci. B. I. Kovaly, Engineer.
Literature on Heavy Machine Building (Mashstroi) G. M. Gordin, Engineer.
Abstracts: This collection of articles is intended for designers, technologists,
and industrial and research workers concerned with corrosion and corrosion
protection of metals.

CONTENTS: This collection of articles deals with problems of corrosion and metal
protection under investigation at the Institute during the past two years. The
articles discuss the problems of corrosion, intermetallic corrosion, contact and wet
corrosion of austenitic steels in aqueous media, protection of casted, fret-
ting corrosion, and resistance of metals to cavitation. No specialities are
mentioned. References follow each article.

TABLE OF CONTENTS

Bibliography 1. Bibliography of '77 (Moscow-Leningrad) (Corrosion and Protection
of Metals in the Machine-Building Industry) Moscow, Mashgiz, 1979. 347 p.
(Moscow) (Gosizdat) no. 98 3,500 copies printed.

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corrosion of austenitic steels in aqueous media, protection of casted, fret-
ting corrosion, and resistance of metals to cavitation. No specialities are
mentioned. References follow each article.

TABLE II. GAS CORROSION AND THE EFFECT OF THE ELECTROLYTE PROPERTIES
ON CORROSION OF ALUMINUM

Bibliography 1. Bibliography of '77 (Moscow-Leningrad) (Corrosion and Protection
of Metals in the Machine-Building Industry) Moscow, Mashgiz, 1979. 347 p.
(Moscow) (Gosizdat) no. 98 3,500 copies printed.

2. I. A. Y. Pribludnyy, Doctor of Chemical Sciences, Professor M. of Publishing
the Soviet A. I. Kirillov, Engineer, Tech. Sci. B. I. Kovaly, Engineer.
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corrosion of austenitic steels in aqueous media, protection of casted, fret-
ting corrosion, and resistance of metals to cavitation. No specialities are
mentioned. References follow each article.

TABLE III. PROTECTIVE COATINGS

Bibliography 1. Bibliography of '77 (Moscow-Leningrad) (Corrosion and Protection
of Metals in the Machine-Building Industry) Moscow, Mashgiz, 1979. 347 p.
(Moscow) (Gosizdat) no. 98 3,500 copies printed.

28(5)

SOV/32-25-4-32 '71

AUTHORS:

Lapin, A. A., Sinyavskiy, V. S., Vedenkin, S. G.

TITLE:

Testing Metals for Corrosion Fatigue on an Electromagnetic Machine of the Natural-vibration Type (Ispytaniye metallov na korroziionnuyu ustalost' na elektromagnitnoy mashine avtokolebatel'nogo tipa)

PERIODICAL:

Zavodskaya Laboratoriya, 1959, Vol 25, Nr 4, pp 461-463 (USSR)

ABSTRACT:

For studying the corrosion-fatigue resistance of aluminum alloys, new testing methods were developed which permit the kinetics of cracking to be determined. The machine suggested represents, in principle, an electromechanical generator with reverse coupling (Fig 1). The load frequency is determined by the fundamental frequency of the sample and can be changed in the range of from 30 to 200 cycles. The sample itself practically acts as a dynamic damper for the elastic element between the electromagnets. The sketch of the machine shows that selenium rectifiers VSA-5, an electromechanical counter SB-1 M-100, computing devices BK-3 with cathodes MTKh-90, as well as a microscope MPV-1 (for measuring the oscillation amplitude) and microscope MBS-2 (for observing the sample) are used. On the

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Testing Metals for Corrosion Fatigue on an Electromagnetic Machine of the
Natural-vibration Type

SOV/32-25-4-32/71

machine described, samples of the aluminum-magnesium alloy AMG-6T (5.87% Mg, 0.60% Mn, 0.22% Si, 0.01% Cu, 0.14% Fe and 0.12% Ti) with the mechanical characteristics:

$\sigma_{0.2} = 19 \text{ kg/mm}^2$, $\sigma_B = 38 \text{ kg/mm}^2$ and $\delta = 22\%$ were tested. A comparison of the destruction occurred was made by means of the standard generator ZG-12; a beam tube of the oscillograph EO-6 was used here. The samples were tested in air, distilled water and 3% NaCl solution. Satisfactory results were obtained (Fig 3) and - according to the character of the curves obtained (Fig 4) - it was stated that the fatigue process in air can be divided into three stages. The propagation of cracks occurs mainly transcrystallitically according to the position of the β phase (Al_3Mg_2). There are 4 figures and 6 references, 5 of which are Soviet.

ASSOCIATION:
Card 2/3

Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta (All-Union Scientific Research Institute of

MAKSIMOV, A.I., inzh.; SOROKIN, P.V., inzh.; DAVIDOVSKAYA, Ye.A.; kand.
tekhn.nauk; VEDENKIN, S.G., prof.

Long-time strength of austenite steels in fuel combustion
products and in superheated steam. [Trudy] TSNITMASH
100:70-89 '59. (MIRA 13:7)
(Heat-resistant alloys)

85117

18.12.6

S/123/60/000/017/001/016
A005/A001

Translation from: Referativnyy zhurnal, Mashinostroyeniye, 1960, No. 17, p. 19, # 91441

AUTHORS: Vedenkin, S.G., Sinyavskiy, V.S.

TITLE: Investigation of Aluminum Alloys for Car Building

PERIODICAL: Tr. Vses. n.-i. in-ta zh.-d. transp., 1959, No. 171, pp. 5-66

TEXT: The authors review the properties of the Al-Alloys applied to car building in the various countries, and they give an account of the methods and results of investigation of the fatigue strength and the corrosion fatigue of the magnalium alloys AMr 3 (AMg3) and AMr 6T (AMg6T). The specimens were tested on an electromagnetic stand of the resonance type assuring the specimen natural vibrations of 30-200 cps frequency. At $N = 10^5 - 10^8$ cycles, the fatigue strength of the AMg6T alloy in air and in 3%-aqueous solution of NaCl is higher than the properties of AMg3, but hereat the decrease of the fatigue strength of the latter in a corrosion medium is relatively greater. The conventional limit of the corrosion fatigue of AMg6T amounts to 0.45 σ_{-1} of this alloy in air, and for AMg3

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85117

Investigation of Aluminum Alloys for Car Building

S/123/60/000/017/001/016
A005/A001

to 0.30 g. The mechanism of the corrosion fatigue was investigated, the variations of the electrode potential of the Al-alloys are presented and discussed depending on the time and the stress state, the kinetics of formation and development of the corrosion-fatigue cracks were studied in their interaction with the stresses and the electrode potential, and it is shown that the corrosion media increase the rate of plastic deformation. The corrosion stability of the Al-alloys was investigated in solutions of chlorides and some acid media; the possibility is shown of using Al-Mg alloys in isothermal cars without paint and construction of tanks for transporting concentrated acids. Corrosion tests of Al-alloys were performed at static stresses. The preliminary plastic deformation intensifies the corrosion cracking of the magnalium alloys, and their sensitivity to the latter increases with increased content of Mg in the Al-alloy. There are 86 references.

F.P.A.

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

LEBEDEVA, L.S., nauchnyy sotrudnik; VEDENKIN, S.O., prof.

Use of inhibitors for protecting rolling stock parts against
corrosion in a water medium. Trudy TSNII MPS no.171:91-106
'59. (MIRA 13:1)

(Corrosion and anticorrosives)
(Railroads--Rolling stock).

BR

83/18
S/081/60/000/012(II)/001/010
A006/A001

26.2.20

Translation from: Referativnyy zhurnal, Khimiya, 1960, No. 12 (II), p. 433,
47993

AUTHORS: Vedenkin, S.G., Kovalev, Ye.A.

TITLE: Vanadium Corrosion of Gas-Turbine Alloys

PERIODICAL: Tr. Vses. n.-i. in-ta zh.-d. transp., 1959, No. 171, pp. 143-164

TEXT: The authors studied the effect of V (and Na) admixture in mazut of the Ural-Volga deposits, on corrosion and strength features of 2 heat-resistant alloy grades. The investigation was made on experimental laboratory installations. Furthermore, the possibility was studied of protecting parts of gas turbine installations from vanadium corrosion. It was established that 3M-417 (EI-417) steel exposed to the contact with artificial fuel "ash" containing V_2O_5 , corroded at $730^{\circ}C$ several hundred times faster than in air atmosphere. Endurance of 3M-481 (EI-481) steel at $700^{\circ}C$ decreased by over a factor of 3 within a stress range of 20-27 kg/mm². Holding the EI-417 and EI-481 steel specimens in contact with artificial ash for 300 hours at $730^{\circ}C$, entails considerable loss of static strength and ductility. Cyclic strength of EI-481 steel, determined subsequently at room


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83418

Vanadium Corrosion of Gas-Turbine Alloys

S/081/60/000/012(II)/001/010
A006/A001

temperature, decreased by a factor of 2. The authors believe that the considerable effect of $V_2O_5 + Na_2SO_4$ on the corrosion rate at $730^{\circ}C$ is caused by the chemical interaction of V_2O_5 with the metal. As a result V_2O_5 is deoxidized to V_2O_3 which is easily reoxidized to V_2O_5 by the air oxygen. Oxidation is accelerated when SO_2 is present in the fuel combustion product. In this case the high rate of scale formation in the combustion products of vanadium fuel is caused by the combined effect of V_2O_5 and SO_3 . Kaolin and CaO reduce sharply the corrosion effect of vanadium mixtures at $730^{\circ}C$ and a 3:1 weight ratio (the weight of the admixture to the weight of the mixture with ash).



A. Mamet

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

VEDENKIN, S.G.

FAST 1 BOOK EXPLORATION

BCT/0505

Abendessen nach 20.00. Institut an der Universität Bonn 8.4. Bayreuth

Rezdorov, Mikhailov; *Materialy sveshchaniya po materialam Mikhailov 22-26 sentyabrya 1998 g.* (Materials of the Conference on Religion and Metals, September 22-26, 1998). Moscow, 1990. 157 p. 3,500 copies printed.

Assoc. Ed.: I.A. Oling, Corresponding Member, Academy of Sciences USSR; Ed. of Publishing House: A.M. Chernov; Tech. Ed.: I.M. Dorzhina.

PURPOSE: This collection of articles is intended for mechanical engineers, metallurgists, and scientific research workers.

CONTRIBUTORS: The collection contains discussions relating to fatigue failure of metals, fatigue in welded joints, and methods for testing endurance. Included are a review of existing theories on metal fatigue, some data on the effect of grain size on fatigue strength, and a review of the effect of residual plasticity patterns, and features of steel fatigue caused by fatigue. Possibilities for applying a new criterion to the notch sensitivity of metals and high-strength steels are investigated. The mechanism of fatigue due to corrosion of metals is discussed along with pertinent experimental data. Also presented are the results of testing the fatigue strength of such metal parts as large-disk pilots, and various parts of machines used in the petroleum industry. Problems involved in testing metals for fatigue are examined. On personalalities are mentioned. Each article is accompanied by bibliographic references, most of which are Soviet.

Skarabudis, J. O. W. (deceased), R. T. Keshelchorn, L. M. Robinson, and J. J. Dondorshorn, Some Data on Physical Regularity Patterns of Steel Fatigue Failure

National S. A. Endurance Under Boyer's Loading and Resistance to Brittle Failure

OLLIE, J.A., and S. Te. Gurevich. Criteria of North American
of the Metal Under Cycle Loading

Marxists, N.Y. Notes Sensitivity of High-Strength Steels

Belanger, R. Ye. Notch Sensitivity of High-Strength Steel

Velenchik, S.G., and Y.S. Shlyapniky. Mechanism of Corrosion-
Fatigue Failure of Metals

PRODUCTS OF KODAKS-EMI LTD

Lebedev, N. A., Markovits, and A. A. Ioffe. Investigation of the cyclic strength of metals by plotting a fatigue diagram

Gallego, J. A., and J. Ye. Garza. Determining the Dependence of the Cyclic Coefficient of the Notch Sensitivity of Metals on the True Stress Concentration Coefficient

INDICATES TREATING OF PATIENT

Kudryavtsev, I. V., and N. M. Gavrilin: Plastic Strength of Large Plates

Baethin, B.M.; and L.F. Polakoff, Pulling Strength of Moller Chains

A. Buehler, R. M., and R. A. Bagshaw, Corrosion-Fatigue Strength of Pump Rods.

BARROSO, N.B. Connection Between the Strength of Materials and that of the Part Under Effect of Heat - Cements and Mortars.

211'BEIR: Yu. I., and A. P. Bezubovskiy. Effluent and air from the

Failure of Blue Metallic Specimens With Bearing Alloy

AVAILABLE: Library of Congress (TA660-A577)

Case 6/20

VR/vrc/mas
11-9-60

ROZENFEL'D, Iosif L'vovich; GOLUBEV, A.I., doktor tekhn.nauk, otv.red.,
retsenzent; IOFA, Z.A., prof., doktor khim.nauk, retsenzent;
VEDENIKIN, S.G., prof., retsenzent; BANKVITSER, A.L., red.izd-va;
MAKUNI, Ye.V., tekhn.red.

[Atmospheric corrosion of metals] Atmosfernaia korrozia metallov.
Moskva, Izd-vo Akad.nauk SSSR, 1960. 371 p.

(MIRA 14:1)

(Corrosion and anticorrosives)

VEDENKIN, S.G., prof.; ZOLOTARSKIY, A.F., kand.tekhn.nauk

Basic methods for the control of metal corrosion in railroad
equipment. Vest. TSNII MPS 17 [..e. 19] 10.7:3-7 '60.

(MIRA 13:11)

(Railroads--Equipment and supplies)
(Corrosion and anticorrosives)

VEDENKIN, S. prof., doktor tekhn.nauk

Fighting against a bitter enemy. NTO 3 no.2:12-15 P '61.

(MIRA 14:3)

Chairman of Committee, all-Union Scientific and Technical Exhibition
1. Predsedatel' Komiteta Vsesoyuznogo soveta nauchno-tekhnicheskikh obshchestv po korrozii i zashchite metallov i orgkomiteta tematicheskoy vystavki "Sredstva bor'by s korroziyey metallov i stroitel'nykh materialov v nardonom khozyaystve" pri Vystavke dostizheniy nardonogo khozyaystva SSSR.

(Corrosion and anti-corrosives)

VEDENKIN, S.G., prof.; MOISEYEV, I.A., kand.tekhn.nauk; SINYAVSKIY,
V.S., kand.tekhn.nauk

Make wider use of aluminum alloys in manufacturing railroad
equipment. Zhel.dor.transp. 43 no.8:26-30 Ag '61. (MIRA 14:8)
(Aluminum alloys) (Railroads—Cars—Construction)

ACCESSION NR: AR3005579

S/0276/63/000/006/B081/B082

SOURCE: RZh. Tekhnologiya mashinostroyeniya, Abs. 6 B444

AUTHOR: Vedenkin, S. G.; Sinyavskiy, V. S.

TITLE: Studies in the field of corrosive metal fatigue

CITED SOURCE: Tr. Vses. mezhvuz. nauchn. konferentsii po vopr. bor'by s korroziyey. M. Gostoptekhizdat, 1962, 30-39

TOPIC TAGS: corrosive fatigue, metal fatigue

TRANSLATION: The paper contains the results of studies of corrosive fatigue on electromagnetic and other machines with the aid of chemical, metallographic, and roentgenographic methods. It was established that the deterioration of metal potential upon the application of cyclic stresses is not a cause by the results of the formation of a corrosive fatigue crack and that the protective action of the cathode current under conditions of corrosive fatigue is related first of all to the appearance of an alkaline medium at the cathode (tested sample) sufficient to passivate the metal and prevent the reduction of fatigue strength

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under the action of the corrosive medium. It is shown that at the metal surface under conditions of application of cyclic stresses and the action of the aggressive medium, the following processes can occur simultaneously: metal corrosion; formation of surface films; disruption of continuity of these films (as a result of the simultaneous action of stresses and the aggressive medium); adsorption at the metal surface with damaged film of the surrounding surface- or corrosive-active medium facilitating the deformation of the metal; the formation of vacancies and their coagulation (as a result of the free movement of dislocations to this surface). Depending on actual conditions to which the test sample or machine parts are subjected (character of the surrounding medium, size of acting loads, frequency of their application), as well as depending on the quality of the metal, the relative value of the above factors (corrosive, adsorptive lowering of strength and the effect of dislocations) can vary in the mechanism of the appearance and development of corrosive fatigue cracks.

DATE ACQ: 24Jul63

SUB CODE: ML

ENCL: 00

Card 2/2

ACCESSION NR: AT4010279

S/3053/62/000/000/0030/0039

AUTHOR: Vedenkin, S. G.; Sinyavskiy, V. S.

TITLE: Studies in the field of the corrosive fatigue of metals

SOURCE: Trudy* Vsesoyuznoy mezhvuzovskoy nauchnoy konferentsii po voprosam bor'by* s korroziyey, Baku, 1962. Moscow, 1962, 30-39

TOPIC TAGS: corrosion, corrosion fatigue, crack, aluminum alloy, mechanical fatigue, fatigue, electromagnetism, resonator, fissure, vibration frequency stress, cyclic stress, cathode current, alkaline, microspore, spore, adsorption, corrosion passivation, corrosive cracking

ABSTRACT: The development of cracks on aluminum alloys and steel, due to mechanical and corrosive fatigue, was studied by conventional methods and also by the use of an electromagnetic resonance machine. This machine was used to find the time of appearance of the fissure and the rate of its increase by measuring the frequency of vibration. The potential of the metal becomes less positive when cyclic stresses are applied to it. This fact is believed to be not the cause, but the result of the formation of fissures due to corrosive fatigue. The protective action of the cathode current in the prevention of corrosive fatigue results from the

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ACCESSION NR: AT4010279

alkalinity of the cathode of the tested specimen. The alkalinity is sufficient for the passivation of the metal and prevents further corrosive action. The authors suggest that if the metal is exposed to an aggressive environment, the distortion of the surface layer occurs in the places at which the stresses are concentrated. The dislocations move to these distortion places and create vacancies. The coagulation of these vacancies creates microspores that, in turn, grow into microfissures. The adsorption of the different surface-active substances occurs mostly on the deformed parts of the metallic surface and favors the formation and development of the microfissures. The presence of these fissures makes the metal more active and corrosive processes develop. There is a difference of oxygen content in the solution on the metallic surface and on the bottom of the fissure (aeration effect) that contributes to the corrosion rate, but does not appear to be the deciding factor in the corrosion process. Orig. art. has: 10 figures.

ASSOCIATION: TSNII MPS

SUBMITTED: 00

DATE ACQ: 28Jan64

ENCL: 00 1

SUB CODE: MM

NO REF SOV: 011

OTHER: 001

Card 2/2

VEDENKIN, S.G., prof.; SINYAVSKIY, V.S., kand. tekhn. red.;
MOISEYEV, I.A., kand. tekhn.nauk; POPOV, A.V., red.;
DROZDOV, N.D., tekhn.red.

[Aluminum alloys for the rolling stock] Aluminievye splavy
dlia podvizhnogo sostava. Pod red. S.G.Vedenkina. Moskva,
Transzheldorizdat, 1962. 41 p. (MIRA 16:3)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut
zheleznodorozhnogo transporta.
(Railroads--Rolling stock) (Aluminum alloys)

VEDENKIN, S.G.; SINYAVSKIY, V.S. (Moscow)

Mechanism of corrosion-fatigue failure. Zhur.fiz.khim. 36 no.10;
2209-2214 O '62. (MIRA 17:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo
transporta Ministerstva putey soobshcheniya.

VEDENKIN, S.G., prof.

Struggle against metal corrosion. Zhel.dor. Group. 26.01.1977-23.11.77.
(MIRA 18.7)

SOURCE: Ref. zh. Khimiya, Abs. 6K37

AUTHOR: Vedenkin, S.G.; Sarycheva, G.S.; Komissarova, V.S.; Chicherina, Ye.A.

TITLE: Corrosion fatigue resistance of aluminum alloys

CITED SOURCE: Sb. Korrozion. ustalost' metallov. L'vov, Kamennyar, 1964, 194-202

TOPIC TAGS: aluminum base alloy, corrosion fatigue, fatigue strength, corrosion fatigue resistance, corrosion resistance, notch sensitivity, bending stress

TRANSLATION: Results are given of a determination of the fatigue strength of various Al-alloys with continuous and periodic immersion of the sample in 0.001% and 4% NaCl solutions. In the 4% solution the fatigue strength of the investigated alloys decreases by 40 to 60% as compared with tests made in air. In the 0.001% NaCl solution the decrease is considerably less. Shot peening increases the fatigue and the corrosion fatigue resistance of the alloys and can be considered as a method of increasing the fatigue strength of VQ.

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ACCESSION NR: AR5011410

creases by 75%. The relative notch sensitivity of the investigated alloys (round notch, $R = 0.75 \text{ mm}$, $n = 10^7$ in the ratio σ_{-1}/σ_{-1n}) in tests in 3% NaCl solution was 1.2 - 2.5 (cantilever-type test) and 1.2 - 1.5 (direct flexure test). From author's resume.

SUB CODE: MM, 48

REF. DC

Card 2/2

VEDENKIN, Sergey Grigor'yevich, prof.; VINITSKIY, Lazar' Yefimovich
kand. tekhn. nauk; LUK'YANCHIKOV, Ivan Kuz'mich, inzh.;
RYZHOVA, Zinaida Alekseyevna, kand. tekhn. nauk; SITKOVSKIY,
Ili'ya Pavlovich, inzh.; BRATCHIK, Ye.I., red.

[Polymers in railroad transportation] Polimery zheleznodorozh-
nomu transportu. [By] S.G.Vedenkin i dr. Moskva, Transport,
1964. 91 p. (MIRA 18:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta, otdeleniye polimerov (for Ryzhova).
2. Glavnyy konstruktor Vsesoyuznogo nauchno-issledovatel'skogo inst'tuta zheleznodorozhnogo transporta (for Sitkovski).
3. Rukovoditel' otdeleniya polimerov Vsesoyuznogo nauchno-issledovatel'skogo instituta zheleznodorozhnogo transporta (for Luk'yanchikov).
4. Rukovoditel' laboratorii korrozii otdeleniya ispytaniya materialov i konstruktsiy Vsesoyuznogo nauchno-issledovatel'skogo instituta zheleznodorozhnogo transporta (for Vedenkin).
5. Rukovoditel' laboratorii reziny otdeleniya polimerov Vsesoyuznogo nauchno-issledovatel'skogo instituta zheleznodorozhnogo transporta (for Vinit'skiy).

VEDENKIN, S.G.; DOBROLYUBOV, V.V.

Corrosion and protection of rails in tunnels. Zashch.met. 1 no.1:84-90
Ja-F '65. (MIRA 18:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo
transporta.

L 1347-66 EWT(m)/EPF(c)/EPF(n)-2/EWG(m)/EWA(d)/EWP(j)/T/EWP(t)/EWP(z)/
EWP(b) IJP(c) RM/DS/MJW/JD/WW/JG/WB

ACCESSION NR: AP5022665

UR/0365/65/001/005/0601/0603

AUTHOR: Vedenkin, S.G. 44,55

TITLE: Work of the metal corrosion section of the Inter-VUZ Conference on
Electrochemistry 44,55, 16

SOURCE: Zashchita metallov, v. 1, no. 5, 1965, 601-603

TOPIC TAGS: metallurgic conference, solution property, electrochemistry,
chemical conference, corrosion

ABSTRACT: 44,55 The Inter-VUZ scientific conference on electrochemistry, held 31 May -
2 June 1965 at the Novocherkassk Polytechnic Institute, was divided into five
sections, one of which was devoted exclusively to metal corrosion. More than
one-half of the 250 reports presented dealt with corrosion inhibitors. 15
S. A. Balezin, V. I. Rodinova, and Ye. S. Bulavina (Moscow Pedagogic
Institute) found that PB-5, I-1A, and BA-6 inhibitors, and especially Katapin K,
effectively lower the corrosion rate of EI-432 [AISI317T], EI-448
[AISI316T], and SKhL-4 alloy steels in 5-30% HCl at 25-80C, but only 18

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ACCESSION NR: AP5022665

under static conditions. At a flow rate of 0.5—2.5 m/sec, the effectiveness of the inhibitors decreases and the corrosion rate of EI-448 increases. 33

^{44,55}
A. P. Brynsa (Dnepropetrovsk State University) ^{44,55} stated that the anionic and molecular-type substances containing groups capable of being reduced. (nitroderivatives of aniline, sulfoacids of naphthalene, and others) are effective inhibitors of titanium corrosion in acid media. ^{44,55} Ye. A. Yakovleva and V. V. Andreyeva (Institute of Physical Chemistry, AN SSSR) ^{44,55} found that titanium corrosion in H_2SO_4 and HCl solutions can be slowed down or completely eliminated by introducing tetravalent titanium or NO_3^- ions.

^{44,55} I. K. Burtseva and ^{44,55} A. I. Krasil'shchikov (GIAP) ^{44,55} found that the inter-crystalline corrosion of stainless steels in nitric acid develops mainly at high positive potentials when steel is in the overpassivated state.

^{44,55} A. I. Glukhova and V. V. Andreyeva ^{44,55} (Institute of Physical Chemistry, AN SSSR) reported on the high corrosion resistance of Nb-Ti alloys in oxidiz-

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ACCESSION NR: AP5022665

ing media. The alloys also resist corrosion in KOH solutions with a concentration of up to 20% and temperatures up to 40C. At higher alkali concentrations and temperatures the corrosion resistance decreased. 24

V. P. Grigor'yev^{44,55} and V. V. Kuznetsov^{44,55} (Rostov State University) found^{44,55} that various ketones slow down the corrosion of aluminum in HCl and H₂SO₄ only when the aluminum surface has an oxide layer whose dissolution is slowed down in the presence of cations. T. N. Smirnova^{44,55} and co-workers reported on the effect of some technological factors on the corrosion resistance, electrochemical characteristics, and structure of AMG-6¹ alloy. They also established optimum aging conditions for V-92 aluminum alloy which ensure good corrosion resistance and high mechanical properties (4 hr at 60C + 3 hr at 200C) or improve the resistance to stress corrosion in the weld and weld-adjacent zone.

Yu. P. Khranilov^{44,55} and V. S. Poroykova^{44,55} (Ivanovsk Chemical Technology Institute), in their report on the corrosion resistance and anodic behavior of^{44,55}

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L 1347-66

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Mg-Li and Mg-Al-Li alloys in concentrated H_2SO_4 and in solutions of various salts, associated corrosion behavior of the alloys in these solutions with the phase composition and structure of the surface layers. L. N. Yagupol'skaya (Electric Welding Institute im. Ye. O. Paton) reported that high-purity Zr is ten times more resistant to corrosion in HCl than commercial-grade Zr and that vacuum annealing at 600C increases the corrosion resistance still further.

The conference demonstrated the high-level scientific research in the field of electrochemistry and corrosion of metals conducted by numerous young scientists at many peripheral institutions of higher learning.

ASSOCIATION: none

SUBMITTED: 00

NR REF SOV: 000

ENCL: 00

OTHER: 000

SUB CODE: MM, GC
ATD Press: 4086-F

Card 4/4

VEDENKIN, S.G.

Research by the section on metal corrosion reported at the inter-university conference on electrochemistry. Zashch. met. 1 no.5:601-603 S-0 '65. (MIRA 18:9)

VEDENIKOV, I. I.

Problem number one. prof.-tekh. obr. 21 no.11:16-17 11:14
(MIRA 18:2)

1. Zaveduyushchiy uchebno-metodicheskim kabinetom Chelya-
binskogo oblastnogo upravleniya professional'no-tekhni-
cheskogo obrazovaniya.

ZUYEV, I.; VEDEN'KOV, S.

Experimental showed good results. Prof. tekhn. obr. 21 no.1:27-28
Ja '64. (MIRA 17:3)

1. Direktor Tsentral'nogo uchebnogo kombinata Yuzhno-Ural'skogo
soveta narodnogo khozyaystva (for Zuyev). 2. Zaveduyushchiy meto-
dicheskim kabinetom Chelyabinskogo oblastnogo upravleniya profes-
sional'no-tekhnicheskogo obrazovaniya (for Veden'kov).

^{Ye.}
VEDEN'KOV, A. P., Cand Agric Sci -- (diss) "Experience of the
Construction and Utilization of ^{artificially heated hot beds} ~~Hot Houses~~ in Technical
^{Mochevskaya} ~~Warm-Ups~~ on Farms of the ^{skaya} ~~Moscow~~ and Leningrad Oblasts."
Len-Pushkin, 1956. 30 pp (Min Higher Ed USSR. Len ^{Agz} ~~Econ-~~
~~Economics~~ Inst); 120 copies. ^{manuscript} ~~Printed on a~~ multiplying
machine (KL 40-58, 114)

KUDRYAVTSEV, V.I.; VELEN'KOV, Ye.P.; LUKIANEN, Zh.I.

Aftereffects of a temporary reduction in light intensity in
tomatoes. Izv. AN Kazakh. SSR. Ser. biol. nauk 2 no.6:30-32
N-D '64. (MIRA 18:3)

LUBENETS, V.D., kand. tekhn. nauk, dotsent; VASIL'YEV, V.I., inzh.;
VEDENIN, V.A., inzh.

Perfect operating process and theoretical indicator diagrams
of a two-rotor vacuum pump with partial internal pressure.

Izv. vys. ucheb. zav.; mashinostr. no.10:119-132 '64

(MIRA 18:1)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche imeni
N.E. Bauman.

VEDENOV. A.

Use of wide-angle and long-focus objectives. Sov. foto 18 no. 10:53-58
0 '58. (MIRA 11:11)

(Cameras)

VEDENOV, A.

About sharpness and lack of sharpness of pictures (to be continued).
Sov.foto 22 no.3:36-37 Mr '62. (MIRA 15:2)
(Photography)

VEDENOV, A.

How to determine the correct exposure. Sov. foto 23 no.4:33-35
Ap '63. (MIRA 16:5)
(Photography—Exposure)

VEDENOV, A.

Sharpness and blurry in photography. Sov.foto 22 no.4:34-36
Ap '62. (MIRA 15:4)

(Photography)

VEDENOV, A.

How to determine the best exposure. Sov. foto 23 no.5:
32-33 My '63. (MIRA 16:10)

VEDENOV, A. A.

USSR/Electronics - Amplifiers

Card : 1/1 Pub. 118 - 3/15

Authors : Lopukhin, V. M. and Vedenov, A. A.

Title : An amplifier based on absorption

Periodical : Usp. fiz. nauk 53/1, 69 - 86, May 1954

Abstract : An amplifier, designed on a new idea in which the phenomenon of absorption is utilized, is described. The coefficient of amplification is about 30 db. and the band pass about 70 - 120% with respect to the carrier. Three references. Diagrams; graphs; illustrations.

Institution : ...

Submitted : ...

Translation D 415987

VEDENOV, A.A.

Nonlinear phenomena in traveling wave amplifier tubes. Radiotekh. i elektron. 1 no.10:1377-1378 O '56. (MLRA 10:1)

1. Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta.
(Amplifiers, Electron-tube)

VEDENOV, A.A.

SUBJECT USSR / PHYSICS

CARD 1 / 2

1467

AUTHOR VEDENOV, A.A.

TITLE On the Theory of the Decay of Pions.

PERIODICAL Zhurn.eksp.i teor.fiz, 31, fasc.2, 347-348 (1956)

Issued: 10 / 1956 reviewed: 11 / 1956

Here the problem of the decay $\pi \rightarrow \mu + \gamma + \nu$ is investigated under the assumption that the myon has the abnormal magnetic moment $\mu_a = \mu' + e/2M$. Here M denotes the mass of the myon. Mesonic interaction is assumed to be scalar. (Pseudoscalar interaction leads to the same results, see B.L.IOFFE and A.P.RUDIK, Dokl.Akad. Nauk, 82, 359 (1952): $H_{\pi, \mu \nu} = g(\varphi_\nu \varphi_\mu) \bar{\Psi}_\pi + \text{conjugated complex terms}$. The interaction of the myon with the γ -quantum is given by the following expression: $H_{\mu, \gamma} = -ie\hat{A} - (1/2)i\mu' \gamma_i \gamma_k F_{ik}$, $F_{ik} = \partial A_k / \partial x_i - \partial A_i / \partial x_k$. The matrix element of this process is equal to $M = \frac{2\pi eg}{\sqrt{E_\pi} |k|} \bar{u}_\mu \left[\hat{e} - \frac{i\mu'}{2e} (\hat{k}\hat{e} - \hat{e}\hat{k}) (i\hat{p} + i\hat{k} - M)^{-1} \mu_\nu \right]$

Here u_μ and u_ν are the unit-bispinors of the wave functions of the myon and of the neutrino, $k(\vec{k}, |k|)$ - the four-momentum of the photon, $p = (\vec{p}, M)$ - the four-momentum of the myon, e - the unit vector of the polarization of the photon. By averaging over polarizations and spins the decay probability dw is obtained. The rather voluminous expression for dw is explicitly given. By integration with respect to the emission directions of the photon the probability of the decay with emission of one myon with the momentum p is obtained. (Here it is assumed that $m = 0$). Also this expression is rather voluminous and is explicitly given.

Žurn.eksp.i teor.fis, 31, fasc.2, 347-348 (1956) CARD 2 / 2 PA - 1487

In the nonrelativistic case $p \ll M, E_\pi$ it is true that $E = M + p^2/2M$. If the range R of the myon is put proportional to p^4 , the following is obtained for the number of myons with a range $< R$:

$$w = \int_0^{p=p_0 (R/R_0)^{1/4}} dw = [1+\tau] w_{\mu+\gamma+\gamma} + \frac{e^2 g^2}{2\pi} \frac{M^2}{E_\pi} (p_0/M)(R/R_0)^{1/4} \left[\frac{\tau^2}{2} \left(\frac{E_\pi}{M} - 1 \right) x^2 + \frac{8\tau}{3} \left(-\frac{M}{E_\pi} + \frac{E_\pi}{M} \right) \frac{x^4}{(E_\pi/M - 1)^2 - x^2} \right]_0^{p_0}$$

Here p_0 and R_0 denote momentum and range respectively of the meson on the occasion of the decay $\pi \rightarrow \mu + \gamma$. Furthermore, it is true that $\tau = \mu'/(e/2M)$, $w_{\mu+\gamma+\gamma}$ denotes the decay probability for $\tau=0$ and $w_{\mu+\gamma} = (g^2/2)(1-M^2/E_\pi^2)p_0$ - the probability of the decay $\pi \rightarrow \mu + \gamma$.

A comparison with the results obtained by IOFFE and RUDIK (see above) shows that the occurrence of abnormal magnetic moment in the myon may lead to an increase of the number of mesons, particularly in the case of short ranges. Similar results may probably be expected also for the case in which the spin of the myon is greater than 1/2.

INSTITUTION: Moscow State University.

VEDENOV, A. A.

56-6-31/47

AUTHOR: Vedenov, A. A.

TITLE: On Some Solutions of the Equations of the Hydrodynamics of Plasma
(O nekotorykh resheniyakh uravneniy gidrodinamiki plazmy)

PERIODICAL: Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1957, Vol. 33,
Nr 6 (12), pp. 1509 - 1511 (USSR)

ABSTRACT: The present report investigates some accurate solutions of the hydrodynamic equations of a cold plasma with and without the presence of an exterior magnetic field. The ions are here considered to be at rest for reasons of simplicity; this is not a restriction in principle. With a one-dimensional flow in the plasma the solution of the equations $\frac{\partial v}{\partial t} + v \frac{\partial v}{\partial x} = \frac{e}{m} E$; $\frac{\partial E}{\partial x} = -4 e(n-n_+)$

$$\frac{\partial n}{\partial t} + \frac{\partial(nv)}{\partial x} = 0; \quad v = e^{-t/t_0} v_0(z); \quad \frac{e}{m} x_0 E = e^{-t/t_0} \zeta_0(z);$$

$z = \frac{x}{x_0} e^{t/t_0}$ can be set up. Here v denotes velocity, n - the density of electrons, n_+ - the density of ions, E - electric field strength, and x_0 - and t_0 - random constants. In order to explain the character of this solution the author substitutes $y = \ln z$ and

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On Some Solutions of the Equations of the Hydrodynamics of Plasma 56-6-31/47

inserts the above ansatz into the above equations. In this system of equations y is then developed in series and a term is disregarded. The system obtained in this way then describes a wave which is propagated with the velocity V . Next, the equations are written down in consideration of a homogeneous and constant exterior field, and also for this case the solution is given. A similar solution is obtained also for a motion in which only v_x, v_y, E_x are different from zero, and in which all quantities depend only upon x, t . Also this system has wave-shaped solutions which depend on the difference $x - Vt$. At $|1 - n/n_0| \ll 1$ the solution of this system becomes harmonic. There is 1 Slavic reference.

ASSOCIATION: Moscow State University
(Moskovskiy gosudarstvennyy universitet)

SUBMITTED: July 4, 1957

AVAILABLE: Library of Congress

Card 2/2

VEDENOV, A. A. and SAGDEEV, R. Z.

"Some Properties of the Plasma with Anisotropic Distribution of the Velocities of Ions in the Magnetic Field." (Work carried out in 1957); pp. 278-284.

"The Physics of Plasmas; Problems of Controlled Thermonuclear Reactions." Vol. III. ~~1~~ 1958, published by INst. Atomic Energy, Acad. Sci. USSR.
resp. ed. M. A. Leontovich, editorial work V. I. Kogan.

Available in Library

VEDENOV, A. A. and RUDAKOV, L. I.

"The Motion of a Charged Particle in the Rapidly Alternating Electro-Magnetic Fields." (Work carried out in 1959); pp. 43-48.

"The Physics of Plasmas; Problems of Controlled Thermonuclear Reactions." Vol. IV. 1958, published by Inst. Atomic Energy, Acad. Sci. USSR.
resp. ed. M. A. Leontovich, editorial work V. I. Kogan.

Available in Library.

VEDENOV, A. A. Cand Phys-Math Sci -- (diss) " Problems of the statistical physics of systems with coulomb interaction." Mos, 1959. Cover, 4 pp (Mos Order of Lenin State Univ im M. V. Lomonosov. Phys Faculty), 120 copies (KL, 45-59, 142)

507/56-36-2-57/63

24(8)

AUTHOR:

Vedenov, A. A.

TITLE:

Thermodynamic Properties of a Degenerated Plasma (Termo-dinamicheskiye svoystva vyrozhdennoy plazmy)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 36, Nr 2, pp 641-642 (USSR)

ABSTRACT:

The author calculates the correction (which is due to the interaction) to the thermodynamic potential Ω of a fully ionized hydrogen plasma for the case in which the electrons of the plasma have to be considered as a Fermi gas and the nuclei form a Boltzmann (Bol'tsman) gas. These calculations are carried out according to the diagram technique developed by Matsubara (Ref 1) for the statistical Green's (Grin) functions of quantum statistical physics. The ratio between the averaged scattering amplitude in the Coulomb (kulon) field e^2/\bar{E} and the average distance R between the particles is assumed to be small: $e^2/R\bar{E} \equiv \alpha \ll 1$. The author investigates the case in which the chemical potential μ and the temperatures T are of the same order of magnitude. Moreover, it holds that $\bar{E} \sim T$. Under such conditions, the plasma is highly compressed. Under the above-discussed conditions the thermodynamic potential Ω

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Thermodynamic Properties of a Degenerated Plasma

of the plasma represents an expansion with respect to the small parameter α ; the corresponding formula for Ω is given explicitly:

$$\Omega = \Omega_0 - \int V_q n_p^e n_{p+q}^e d\vec{p} d\vec{q} - \frac{2}{3} \sqrt{\pi} e^3 \left(2 \frac{\partial n_e}{\partial \mu_e} + \frac{\partial n_i}{\partial \mu_i} \right)^{3/2}$$

$$n_p = \left[1 + \exp(p^2/2m - \mu)/T \right]^{-1}, \quad n = \int n_p d\vec{p}$$

Ω_0 denotes the thermodynamic potential of the ideal gas consisting of electrons and nuclei, $V_q = 4\pi e^2/q^2$ - the Fourier (Fur'ye) component of the potential of the Coulomb interaction $e^2/|\vec{x}|$, μ_e and μ_i - the chemical potentials of the electrons and nuclei respectively. The second term in the above-given formula denotes the exchange energy of the electrons and the third term is due to the self-consistent interaction of the particles. According to the author's opinion, a result

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Thermodynamic Properties of a Degenerated Plasma SOV/56-36-2-57/63

obtained by Landau and Lifshits is incorrect. The author thanks L. D. Landau for a discussion. There are 2 references, 1 of which is Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet
(Moscow State University)

SUBMITTED: November 13, 1958

Card 3/3

SOV/56-36-3-56/71

24(3)

AUTHOR:

Vedenov, A. A.

TITLE:

The Free Energy of Strong Electrolytes (Svobodnaya energiya sil'nykh elektrolitov)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959,
Vol 36, Nr 3, pp 942 - 943 (USSR)

ABSTRACT:

By employing the diagram technique for the calculation of the pair correlation function in classical theoretical physics, which was developed by the author (Ref 1), a formula is given by the present paper ("Letter to the Editor") for the calculation of free energy in strong electrolytes. In this connection it is assumed that the radius of the close-range action repulsive forces r_0 and the neutralized scattering amplitude e^2/T in the Coulomb field e^2/r are considerably smaller than the average distance between the particles $\bar{r} = \nu^{-1/3}$. The system under investigation is thus near an ideal state, i.e. the interaction-dependent corrections to the free energy are small in comparison to the free energy of the perfect gas. It is further assumed that the electrolyte consists of two kinds of particles with the charges

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